Claims

1. A conductive article comprising:

a substrate; and

a transparent and conductive layer comprising fine conductive fibers and formed on at least one face of the substrate,

wherein the fibers are electrically in contact with each other and dispersed so as not to form agglomerates of said fibers.

2. A conductive article comprising:

a substrate; and

a transparent and conductive layer comprising fine conductive fibers and formed on at least one face of the substrate,

wherein the fibers are electrically in contact with each other and dispersed so that each of the fibers is separated from other fibers, or that each of bundles of the fibers is separated from other bundles.

3. The conductive article of claim 1 or 2, wherein the fibers are carbon fibers.

4. The conductive article of claim 1 or 2, wherein carbon fibers are carbon nanotubes.

5. The conductive article of claim 1 or 2, wherein the fibers are multi-wall carbon nanotubes, and each of the carbon nanotubes is separated from other carbon nanotubes while maintaining electrical contact between the nanotubes.

6. The conductive article of claim 1 or 2, wherein the fibers are single-wall carbon nanotubes that form bundles of the carbon nanotubes, and each of the bundles is separated from other bundles while maintaining electrical contact between the bundles.

7. The conductive article of claim 1 or 2, wherein the fibers are double-wall or triple-wall carbon nanotubes that form bundles of the carbon nanotubes, and each of the bundles is separated from other bundles while maintaining electrical contact between the bundles.

8. The conductive article of claim 1 or 2, wherein the conductive article has a surface resistivity of from 10^0 to10^{11} Ω/□.

9. The conductive article of claim 1 or 2, wherein the transparent and conductive layer has a surface resistivity of from 10^0 to 10^1 Ω/□ and a 550 nm light transmittance of at least 50 %.

10. The conductive article of claim 1 or 2, wherein the transparent and conductive layer has a surface resistivity of from 10^2 to 10^3 Ω/□ and a 550 nm light transmittance of at least 75 %.

11. The conductive article of claim 1 or 2, wherein the transparent and conductive layer has a surface resistivity of from 10^4 to 10^6 Ω/□ and a 550 nm light transmittance of at least 90 %.

12. The conductive article of claim 1 or 2, wherein the transparent and conductive layer has

a surface resistivity of from 10^7 to 10^{11} Ω/□ and a 550 nm light transmittance of at least 93 %.

13. The conductive article of claim 1 or 2, wherein the substrate is formed of a transparent synthetic resin.

14. A conductive article comprising:

a substrate made of a thermoplastic resin; and

a transparent and conductive layer comprising carbon nanotubes and formed on at least one face of the substrate,

wherein the carbon nanotubes are electrically in contact with each other and dispersed so that each of the carbon nanotubes is separated form other carbon nanotubes, or that each of bundles of the carbon nanotubes is separated from other bundles.

15. A method for manufacture of a conductive article comprising:

applying a layer of fine conductive fibers to a surface of a substrate, wherein the fibers are electrically in contact with each other and dispersed so as not to form agglomerates of said fibers.

16. The method of claim 15, wherein the fine conductive fibers are carbon nanotubes.

17. The method of claim 15, wherein the conductive article has a surface resistivity of from 10^0 to10^{11} Ω/□.

18. The method of claim 15, wherein the conductive article has a surface resistivity of from 10^0 to 10^1 Ω/□ and a 550 nm light transmittance of at least 50 %.

19. The method of claim 15, wherein the conductive article has a surface resistivity of from 10^2 to 10^3 Ω/□ and a 550 nm light transmittance of at least 75 %.

20. The method of claim 15, wherein the conductive article has a surface resistivity of from 10^4 to 10^6 Ω/□ and a 550 nm light transmittance of at least 90 %.

21. The method of claim 15, wherein the substrate is formed of a transparent synthetic resin.